

Docket No.: 42390.P13390

AMENDMENTS TO THE CLAIMS

Listing of claims:

1. (Currently amended): An integrated circuit package comprising:
a printed circuit board having a ground ring connected to a ground plane of the printed circuit board;
a non-metal connector attached to the printed circuit board within the ground ring;
a metal casing substantially enclosing the printed circuit board but not enclosing the non-metal connector, the metal casing having a metal lip that makes physical and electrical contact with the ground ring of the printed circuit board, the metal casing comprising a first metal portion that substantially covers a top surface of the printed circuit board, and a second metal portion that substantially covers a bottom surface of the printed circuit board, wherein a perimeter edge of the first metal portion at least partially overlaps a perimeter edge of the second metal portion; and
a first perimeter ground ring disposed on the printed circuit board that at least partially and concentrically encloses the first ground ring, the second ground ring making electrical contact with at least one of the first metal portion or the second metal portion.
2. (Canceled)
3. (Currently amended): The integrated circuit package of claim 2 1, wherein the second metal portion comprises a heat sink having a plurality of fins.
4. (Canceled)
5. (Original): The integrated circuit package of claim 4, wherein the second metal portion, makes electrical contact with a second perimeter ground ring on the bottom surface of the printed circuit board, the second perimeter ground ring substantially circling the bottom surface of the printed circuit board, the second perimeter ground ring being electrically coupled to the ground plane.

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6. (Original): The integrated circuit package of claim 5, wherein the first perimeter ground ring is coupled to the second perimeter ground ring by a plurality of vias spaced intermittently around the first and second perimeter ground rings.

7. (Currently amended): A transmitter comprising:

a printed circuit board having a top surface and a bottom surface, the top surface having a first perimeter ground ring, and the bottom surface having a second perimeter ground ring, the first perimeter ground ring substantially circling the top surface of the printed circuit board, the second perimeter ground ring substantially circling the bottom surface of the printed circuit board;

a first metal casing substantially covering the top surface of the printed circuit board, the first metal casing being in electrical contact with the first perimeter ground ring; and

a second metal casing substantially covering the bottom surface of the printed circuit board, the second metal casing being the electrical contact with the second perimeter ground ring, wherein a perimeter edge of the first metal portion at least partially overlaps a perimeter edge of the second metal portion; and

an internal ground ring concentrically disposed within the at least one of the first perimeter ground ring or the second perimeter ground ring and electrically coupled to at least one of the first metal casing or the second metal casing to allow a connector to connect to the printed circuit board through the internal ground ring.

8. (Original): The transmitter of claim 7 further comprising:

a plurality of vias electrically coupling the first perimeter ground ring with the second perimeter ground ring.

9. (Original): The transmitter of claim 7 comprising:

a ground ring on the top surface of the printed circuit board;

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a non-metal connector coupled to the top surface of the printed circuit board, within the ground ring, wherein the first metal casing surrounds a perimeter of the non-metal connector and makes electrical contact with the ground ring.

10. (Original): The transmitter of claim 7, wherein the second metal casing has fins and serves as a heat sink.

11. (Canceled)

12. (Canceled)

13. (Currently amended): A method of reducing EMI from a transceiver, the method comprising:

attaching a non-metal connector to a printed circuit board having a ground ring;

surrounding the printed circuit board with a metal shield except for the non-metal connector, the metal shield making physical and electrical contact with the ground ring;

at least partially overlapping a perimeter edge of a first portion of the metal shield with a perimeter edge of a second portion of the metal shield; and

making electrical contact between the first metal casing and a first perimeter ground ring circling the top surface of the printed circuit board and at least partially disposing the ground ring concentrically within the first perimeter ground ring.

14. (Original): The method of claim 13 further comprising:

inserting an electrically conductive gasket between the metal shield and the ground ring.

15. (Original): The method of claim 13, wherein surrounding the printed circuit board with a metal shield further comprises:

covering a top surface of the printed circuit board with a first metal casing having an opening for the non-metal connector; and

covering a bottom surface of the printed circuit board with a second metal casing.

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16. (Original): The method of claim 15, wherein covering the top surface of the printed circuit board further comprises:

17. (Original): The method of claim 16 further comprising:
inserting an electrically conductive gasket between the first metal casing and the first perimeter ground ring.

18. (Original): The method of claim 15, wherein covering the bottom surface of the printed circuit board further comprises:

making electrical contact between the second metal casing and a second perimeter ground ring circling the bottom of the surface of the printed circuit board.

19. (Original): The method of claim 18 further comprising:
inserting an electrically conductive gasket between the second metal casing and the second perimeter ground ring.